

Please amend as follows:

1. (Currently amended) A method for transmitting data packets (DAT) by way of a synchronous digital data transmission network (SDH) as defined by the International Telecommunications Union (ITU) in which the data packets (DAT) are packed into synchronous transport modules (STM-N), characterized in that

the subunits (VC) of synchronous transport modules (STM-N) of the same size are used in order to establish logical virtual connections between network elements (NE1 - NEn, MUX1, MUX2, CC1, CC2) of the synchronous digital data transmission network (SDH),

that the virtual connections (LV1-LV4) are entered into an address table (TAB),

that in at least one part of the network elements (NE1 - NEn, MUX1, MUX2, CC1, CC2) of the synchronous digital data transmission network, an evaluation of the target address (ZAD) of the data packets (DAT) takes place and

that, at least for a part of the data packets (DAT) from at least one of the network elements of the synchronous digital data transmission network, on the basis of the address table (TAB) and the target address (ZAD), a decision is made as to which one of the virtual connections (LV1 - LV4) is used to transmit this data packet.

2. (Original) The method according to claim 1, in which the data packets (DAT) come from a local area network (LAN).

3. (Currently Amended) The method according to claim 1, in which the data packets (LAN) are structured in accordance with the ~~Internet~~ Internet ~~Protocol~~ Protocol.

4. (Currently Amended) The method according to claim 1, in which the target address (ZAD) is comprised of a network address (NAD) and a host address (HAD) and only the network address (NAD) is evaluated in the intermediate network elements.

5. (Currently Amended) The method according to claim 1, in which ~~an~~ a respective address table (TAB) is stored in each network element and is prepared by a central network management system (TMN-IP).

6. (Currently Amended) A The method according to claim 1 for transmitting data packets (DAT) by way of a synchronous digital data transmission network (SDH) as defined by the International Telecommunications Union (ITU) in which the data packets (DAT) are packed into synchronous transport modules (STM-N), characterized in that

subunits (VC) of synchronous transport modules (STM-N) of the same size are used in order to establish logical virtual connections between network elements (NE1 - NEn, MUX1, MUX2, CC1, CC2) of the synchronous digital data transmission network (SDH),

that the virtual connections (LV1-LV4) are entered into an address table (TAB),

that in at least one part of the network elements (NE1 - NEn, MUX1, MUX2, CC1, CC2) of the synchronous digital data transmission network, an evaluation of the target address (ZAD) of the data packets (DAT) takes place and

that, at least for a part of the data packets (DAT) from at least one of the network elements of the synchronous digital data transmission network, on the basis of the address table (TAB) and the target address (ZAD), a decision is made as to which one of the virtual connections (LV1 - LV4) is used to transmit this data packet,

and wherein in which the address table (TAB) is automatically prepared by a network element, by virtue of the fact that the target addresses (ZAD) and the source addresses of incoming and outgoing data packets (DAT) are recorded.

7. (Currently Amended) The method according to claim 6, in which a number of network elements equalize synchronize their address tables (TAB) .

8. (Currently Amended) The method according to claim 7, in which the equalization synchronization of the address tables (TAB) takes place via a service channel.

9. (Currently Amended) The method according to claim 1, in which the virtual connections (LV1 - LV4) are re-established at predetermined time intervals ~~depending on the use of~~ by using a central network management system (TMN-IP, TMN-SDH).

10. (Original) The method according to claim 1, in which a new, fixed, logical connection is established at the instigation of a network element if the number of data packets to be transmitted which have the same target address or a group of neighboring target addresses, exceeds a threshold value.

11. (Original) The method according to claim 1, in which sequences of data packets with the same source address and target address are detected and handled the same.

12. (Currently Amended) The method according to claim 1, in which the network element, disposed at the a transfer point to the synchronous digital data transmission network, makes the a decision as to which one of the virtual connections is used to transmit a data packet.

13. (Currently Amended) A network element (NE) for a synchronous digital data transmission network (SDH) as defined by the International Telecommunications Union (ITU) system, characterized by means of comprising

an interface (IN) by way of which the network element receives data packets with a target address, a memory (MEM) in which an address table (TAB) is stored, which table has entries regarding logical virtual connections between network elements of the synchronous digital data transmission network (SDH),

means (IPADDR) for evaluating the target address of data packets, and means (SEL) for making a decision, on the basis of the target address and the address table, as to which one of the virtual connections is used to transmit a data packet.

14. (Currently Amended) The network element according to claim 13, that wherein the element is a multiplexer (MUX; MUX1, MUX2) or concentrator.

15. (Currently Amended) The network element according to claim 13, that wherein

the element is a cross-connector (CC, CC1, CC2) and the means for evaluating the target address are provided for evaluating only the a network address contained in the target address.

16. (Currently Amended) The network element according to claim 13, that wherein the element is a compressor (COMP1, COMP2) and only repacks incoming subunits of synchronous transport modules into second, outgoing, smaller subunits of synchronous transport modules if the incoming subunits are not fully packed.